

## REMARKS

Claims 10, 15, 21 and 22 are amended to more particularly point out that, in Applicants' invention, the shell is circumferentially welded to the shoulder of the endcone assembly, as described throughout the specification, including at page 10, lines 6-10, and shown in Figs. 10-15. The claims are also amended to recite that the mat protection element is integrally formed with the shoulder, as shown in Figs. 4-17, and described beginning at page 5, line 8, and page 8, beginning at line 22.

Claim 10 is also amended to affirmatively call out the elements of the endcone assembly, i.e., the inlet end, the sidewall, the shoulder and mat protection element, all of which were originally recited in the claim, and to clarify that the mat protection element extends inwardly toward the substrate and at least partially overlies the mat support material, as shown in Figs. 4-17.

Claims 13 and 17 are amended to recite that the mat protection element has multiple protrusions, clarifying the first-and-second language. Claims 14 and 18 are amended to clarify the nature of the group recited therein.

The amendments to claims 10 and 15 make explicit features that were implicit in the claims as previously presented in that the endcone includes the mat protection element and is attached to the shell, and so do not add new matter or raise new issues that would require further search. The remaining amendments only serve to clarify the language of the claims. It is respectfully requested that the amendments be entered. In the event that the claims are still deemed unpatentable over the art, it is requested that the amendments be entered nevertheless, if only for purpose of clarifying issues for appeal.

*Claim Rejection under 35 USC § 102(b)*

Claims 10-15 and 17-20 were rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent No. 4,155,980, issued to Santiago et al. in 1979.

The converter in Santiago et al. is formed of two half shells 3a and 3b that are welded at flanges 8, Figs. 1 and 2, and col. 3, lines 19-22. The housing includes not only the portion that surrounds the substrate, but also the portions that form the inlet and outlet endcones. The rejection points to seal ring 5 as comparable to Applicants' mat protection element. It is pointed out that the seal ring in Santiago et al. is formed apart from the shell and installed in a groove 7 in the housing prior to mating and welding the half shells. This approach necessitates a longitudinal seam. Most, if not all, modern converters eliminate longitudinal seams, for example, by forming a seamless tubular shell and attaching an endcone by a circumferential weld seam. Santiago et al. also fails to show any protrusion contacting the portion of the housing surrounding the substrate and mat, such as the protrusion that contacts the shell in Applicants' preferred embodiments. Nothing in Santiago et al. contemplates an endcone that comprises an integral mat protection element with a protrusion to contact the shell, and is attached by a circumferential weld. Without these features, Santiago et al. does not anticipate, or even suggest, Applicants' catalytic converter.

Claim 10 is directed to Applicants' catalytic converter that includes a shell and an endcone assembly that are attached by a circumferential weld. Santiago et al. is directed to a converter with a longitudinal seam. In accordance with the claim, the endcone assembly extends integrally from the shoulder. In Santiago et al., the sealing rings are distinct elements, and are not integral with the stamping that forms the endcone. Moreover, in the claim, the shell and endcone are distinct elements, and the mat protection element comprises a protrusion in contact with the shell. Santiago et al. shows no such protrusion. Therefore, Santiago et al. does not anticipate, or suggest, Applicants' catalytic converter in claim 10.

Claims 11-14 are dependent upon claim 10, but recite additional features preferred in the practice of Applicants' invention. Since Santiago et al. does not show claim 10, it follows that it cannot show claims 11-14 dependent upon claim 10.

Claim 15 is directed to Applicants' method for manufacturing a catalytic converter. The claim calls for forming an endcone assembly wherein a mat protection element extends integrally from a shoulder, and welding the shoulder circumferentially to the shell wherein the substrate and mat support material are disposed. As discussed above in regard to claim 1, Santiago et al. forms sealing rings separate from, and so not integral with, the half shells that make up the endcone, and assembles the converter with a longitudinal seam, as opposed to a circumferential seam. Moreover, Santiago et al. does not show a protrusion on the sealing ring that would contact the shell when the shell is distinguished from the endcone, in accordance with the language of the claim. Thus, Santiago et al. does not teach or suggest Applicants' method in claim 15, or in claims 17-20 dependent thereon.

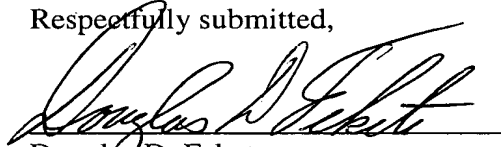
Accordingly, it is respectfully requested that the rejection of claims 10-15 and 17-20 based upon Santiago et al. be reconsidered and withdrawn, and that the claims be allowed.

*Conclusion*

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Douglas D. Fekete', is written over a horizontal line.

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